CIRM RFA-07-01

APPLICATION # CL1- 00519-1

STAFF ANALYSIS

FEASIBILITY:

Project Scope: The project will modify space in two buildings to support two clusters of institutional-based hESC researchers and serve several off-site researchers associated with this research center. Work in one newly constructed building involves renovations in a suite of three adjoining rooms. The renovation in the other building involves a single tissue culture room that will expand capabilities of an existing modest-sized hESC work space. The work to be accomplished is described in detail and reflects a thoughtful assessment of space use and equipment layout in these two distinct locations. Work in both buildings is focused on mechanical, electrical, plumbing systems modifications to accommodate biosafety cabinets, imaging equipment, and laminar flow fume hoods. The plans provided in support of the project are well developed schematic design drawings with all design issues clearly addressed, including circulation and equipment placement.

The proposed improvements in the two buildings involve 1,655 gross square feet (gsf) providing 933 assignable square feet (asf). Aside from the thickness of walls, it is not clear what constitutes the non-assignable area of 722 square feet making up the remaining gross area as the work described on the drawings appears to occur exclusively within existing assignable area. We assume the gross area is a calculated gross area assuming a net-to-gross area ratio in the building of 56 percent. A rough take-off from the drawings confirmed the assignable square footages provided.

Project Management: The proposal identifies reasonable construction management processes that are in place at the institution with appropriate institutional management support. The application indicates that additional institutional funding has been designated for this project in the event construct bids exceed the approved budget.

COST:

A detailed cost estimate with 63 lines of detail is provided to substantiate the construction amount of $335,500. Plumbing, HVAC and electrical work constitute more than 80 percent of the cost of the project. Finishes, including closing of a door opening, a modest amount of casework and other miscellaneous work make up the rest of the estimate. A construction contingency of $33,000 (10 percent of construction) and design/administrative costs of $55,275 (16 percent of construction) constitute the balance of costs within the total project cost of $423,775. A minor reduction in these latter costs of $4,400 would bring the proposal into compliance with the RFA requirement that the combined amount for these costs not exceed 25 percent of the construction costs.

The overall cost per asf for the renovation work is $533. To convert this to a comparable figure for building gross square feet (gsf) in a typical research-intensive building, one would assume an overall building efficiency of assignable-to-gross area of 60 percent. Thus, the 933 asf would equate to 1,555 gsf if one considers the full complement of building space (e.g. the gross building area including circulation and support) constructed to support the area to be renovated. Using this calculated gross area, the cost per gsf would amount to $273/gsf. This provides a more meaningful comparison to new laboratory building construction costs. We conclude that the average cost for new laboratory construction would be about $600/gsf, excluding land and site utilities. This amount would vary widely within California, but is being used here as an indicator of new construction value for comparative purposes. Based on this comparison, we conclude that the renovation work represents about 46 percent of the cost of new laboratory space. General capital funding guidelines indicate that costs should not exceed about 65 percent of new construction in order to be considered a reasonably good investment to provide new hESC laboratory space.

The applicant indicates that the shared laboratory would be able to accommodate the NIH-free laboratory space needs for up to 20 Principal Investigators (PIs). Based on the total cost for the shared laboratory, the cost per institutional based PI is $21,000. Based on CIRM funding only (construction and equipment) the cost per institutional-based PIs is $71,189.

TIMELINE:

The applicant indicates planning for the project will begin in July 2007, immediately upon grant approval. The project schedule indicates that preliminary plans and working drawings have been completed and a construction contract is to be awarded in December 2007. The plan is to complete construction by April 2008, indicating an overall project duration of nine months

INSTITUTIONAL COMMITMENT:

The applicant indicates that the project cost is $529,719, with CIRM funding of $423,775 and institutional funding of $105,944. Based on our review of the cost estimate provided in support of the application, we conclude that the requested CIRM funds of $423,775 will fully fund the described work and no institutional funding is currently expected to be applied to the renovation project. The applicant indicates that $105,944 in matching funds (25 percent of the requested CIRM funds of 423,775 relates to “the value of the construction of (the newly constructed building) put in place after January 1, 2005.” Staff would note that the RFA, however, specifically states that “matching funds can be satisfied if the institution can document funds, excluding other grant funds, committed to similarly projects (i.e. renovation of lab space and equipment purchases) after January 1, 2005 (emphasis added). The applicant considers the investment in the newly constructed

building to be the matching amount, based on a pro rata share of the construction cost for the building that houses one of the two shared laboratories.

Our analysis indicates that the cited match is not consistent with the requirements of the RFA. In theory, every institution that is proposing a shared laboratory in an "owned" building is devoting the value of the building as a fundamental commitment to the shared laboratory. The fact that one of the spaces to be used at this institution is recently completed does not qualify as matching funds under the provisions of the RFA.

On this basis, if this application is approved for funding, the Facilities Working Group may want to condition its approval on the institution identifying matching funds to contribute to the project. As the total project cost is $423,775, the 20 percent matching funding requirement would be $84,755. This amount would offset a like amount of CIRM grant funds since the applicant requested 100 percent of the construction budget to be CIRM funded, and with an appropriate matching amount, only $339,020 in CIRM funding would be needed.

HISTORICAL PERFORMANCE:

Data for three projects undertaken between August of 2004 and August of 2005 and ranging in cost from $1.3 million to $1.6 million were submitted as information on historical performance. The data indicate that actual costs compared to project budgets ranged from $281,000 under budget (17.5 percent) to $8,000 under budget (0.6 percent). The actual completion dates for all three projects were precisely as planned. There were only three change orders noted for these three projects. A total of six laboratory renovation projects ranging in value from $1 to $5 million have been undertaken in the last two years with a value of $14.6 million

RESPONSIVENESS:

Shared Laboratory: There is a reasonable amount of hESC activity in the area to indicate that a shared laboratory would be utilized well. There are 20 researchers based at the host institution that are planning to undertake hESC research activities. An additional 10 Principal Investigators in the area are cited as being potential users of the facility.

Techniques Course: A techniques course is not proposed.

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Facilities Working Group Issues

- **Costs—**How will the Facilities Working Group address the excess amount of fees and administrative costs of $4,400?
- **Matching Funds—**How will the Facilities Working Group address the issue of building costs being a source of matching funds?

The grant management office will need to confirm that all conditions of the grant as indicated in the Grants Administration Policy have been met. This would include confirming that all past work is consistent with grant requirements for prevailing wage and other construction-related requirements. This includes confirmation that equipment funds are budgeted pursuant the Grants Administration Policy as adopted December 7, 2006.